[54]发明名称　用于数据存储设备物理格式的用户定义的系统与方法

[57]摘要

　　在一个数据处理系统上存储数据是在生成一个数据文件时，通过显示一个用户界面，允许用户为该数据文件选择存储标准而完成的。响应用户为一个文件选择的存储标准，从多种可利用的物理格式类型中为该文件确定一种物理格式类型。然后将该文件作为至少一个符合所确定的物理格式类型的第一记录存储在一个直接存取存储设备上。
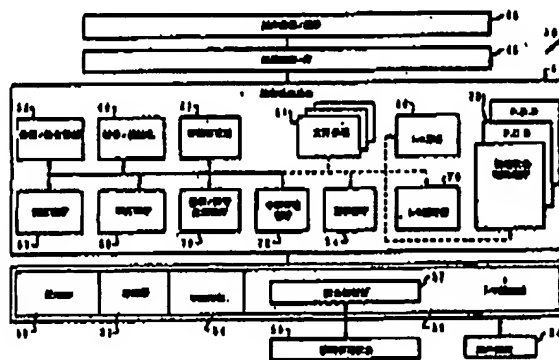
(BJ)第 1456 号

参见图2，其中描绘了可用来实现本发明的方法与系统的一个数据处理系统40的软件与硬件部件的一个高层方框图，数据处理系统40包括位于一个硬件系统44中的一个操作系统核心42。操作系统最好是由诸如可从微软公司得到的MS－DOS／版本3·3或更晚的版本，或者可以从国际商用机器公司得到的OS／2操作系统之类磁盘操作系统提供的。硬件系统44包括一个中央处理单元（CPU）50及一个主存储器52。硬件系统44还包括一个中断控制器54及输入／输出适配器56。包含在输入／输出适配器56中的有设备控制器57，后者在操作系统核心42的软件与一个直接存取存储设备59之间操作。

用户进程／程序46以熟悉本技术的人员众所周知的方式，通过数字48处所描绘的系统调用，访问操作系统核心42中的所选择的过程。如在这些系统中常用的，操作系统核心42中所选择的过程是设计成供数据处理系统40内的应用程序调用的，然后任务将返回到调用该操作系统核心过程的用户程序中。以这一方式，操作系统核心42作为数据处理系统40的用户与硬件系统44之间的接口工作。

操作系统核心42被利用来提供一个各种进程或程序可在其中执行的环境。操作系统核心42通过控制文件的建立与改动、输入／输出设备的控制以及提供使数据处理系统40能与各种外部设备接口的许多设备驱动程序，来提供有效的利用并防止用户应用程序与数据处理系统40的正常操作的互相干扰。

操作系统核心42中包括多个异步子系统，其中包括进程／任务管理系统58，它用于为用户进程46提供任务创建、删除、状

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态与同步功能。初始化系统６０通常以微码形式实现在不能寻址的存储器中，并且是用来将操作系统加载进存储器５２中的。

接着描述存储器管理系统６２。存储器管理系统６２分配与重新分配计算机存储器５２的部分。文件系统６４被很好地用来控制文件的建立与删除。一个文件只是作为一个单位由一个数据处理系统存储或处理的一个命名的记录组。通常在操作系统核心内所编址的文件的另一方面便是对文件访问的控制。存取控制用于保证对文件或目录的一次访问是经过正确性检验的。下面描述输入／输出服务系统６６。输入／输出服务系统６６最好是操作系统核心４２中的控制外围硬件的一个功能单元。

下面描述操作系统核心４２中的调度程序（dispatcher）６８。调度程序６８令作业或任务执行。从而，调度程序６８负责提供多重任务处理，并与一个调度程序（scheduler）协同操作来实现一种特定形式的调度系统。

在操作系统核心４２内还描绘了陷阱与信号处理程序７０，它是用来响应通常由硬件系统４４激活的陷阱与信号的。在硬件４４生成的信号中有涉及存储器５２及通过Ｉ／Ｏ适配器５６访问的辅助存储器５９（直接存取存储设备即"ＤＡＳＤ"）的页面出错信号指示。这些页面出错信号又细分成与所存取的存储器的类型相对应的两种类型。页面回收操作涉及限于存储器５２的存储器页面调度操作。请求Ｉ／Ｏ操作的页面出错是第二类。与中央处理器操作及页面回收相比，任何辅助存储器操作需要相对大量的时间来执行。

中断管理程序７２很好地管理由操作系统核心４２与核心扩充设立的中断处理程序，这些中断处理程序采取一切必要的动作来响

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中华人民共和国国家知识产权局

PGJU 4H55D3

君翁印晓

3606 审查员

申请号：	02140736.3	部门及通知书类型：	3—D	发文日期：
代理人：	马莹，邵亚丽			
申请人：	三星电子株式会社			
发明名称：	记录介质、实时记录和重放方法及装置、文件操作方法			

第一次审查意见通知书

1. ☒ 申请人于 <u>2002</u> 年 <u>7</u> 月 <u>15</u> 日提出了实审请求，根据专利法第 35 条第 1 款的规定，审查员对上述发明专利申请进行实质审查。

   ☐ 根据专利法第 35 条第 2 款的规定，国家知识产权局决定自行对上述发明专利申请进行审查。

2. ☒ 申请人要求以其在：

<u>KR</u>	专利局的申请日	<u>1998 年 5 月 1 日</u>	为优先权日，
	专利局的申请日		为优先权日，
	专利局的申请日		为优先权日，
	专利局的申请日		为优先权日，
	专利局的申请日		为优先权日，

   ☒ 申请人已经提交了经原申请国受理机关证明的第一次提出的在先申请文件的副本。

   ☐ 申请人尚未提交经原申请国受理机关证明的第一次提出的在先申请文件的副本，根据专利法第 30 条的规定视为未提出优先权要求。

3. ☐ 申请人于___年__月__日和___年__月__日提交了修改文件，

   经审查，其中：___年__月__日提交的_____不能被接受；

   ___年__月__日提交的_____不能被接受；

   因为上述修改 ☐ 不符合专利法第 33 条的规定。 ☐ 不符合实施细则第 51 条的规定。

   修改不能被接受的具体理由见通知书正文部分。

4. ☒ 审查是针对原始申请文件进行的。

   ☐ 审查是针对下述申请文件进行的：

   申请日提交的原始申请文件的权利要求第_____项、说明书第_____页、附图第_____页；

   ___年__月__日提交的权利要求第_____项、说明书第_____页、附图第_____页；

   ___年__月__日提交的权利要求第_____项、说明书第_____页、附图第_____页；

   ___年__月__日提交的说明书摘要。

5. ☐ 本通知书是在未进行检索的情况下作出的。

   ☒ 本通知书是在进行了检索的情况下作出的。

   ☒ 本通知书引用下述对比文献(其编号在今后的审查过程中继续沿用)：

编号	文件号或名称	公开日期 （或抵触申请的申请日）
1	WO9814938A1	1998 年 4 月 9 日
2	CN1117168A	1996 年 2 月 21 日
3		年 月 日
4		年 月 日

6. 审查的结论性意见：

    ☒ 关于说明书：

        ☐ 申请的内容属于专利法第 5 条规定的不授予专利权的范围。

        ☐ 说明书不符合专利法第 26 条第 3 款的规定。

        ☒ 说明书的撰写不符合实施细则第 18 条的规定。

    ☒ 关于权利要求书：

        ☐ 权利要求_____属于专利法第 25 条规定的不授予专利权的范围。

        ☐ 权利要求_____不符合实施细则第 2 条第 1 款关于发明的定义。

        ☐ 权利要求_____不具备专利法第 22 条第 2 款规定的新颖性。

        ☒ 权利要求 5,7 不具备专利法第 22 条第 3 款规定的创造性。

        ☐ 权利要求_____不具备专利法第 22 条第 4 款规定的实用性。

        ☐ 权利要求_____不符合专利法第 26 条第 4 款的规定。

        ☐ 权利要求_____不符合专利法第 31 条第 1 款的规定。

        ☒ 权利要求 1-4 不符合实施细则第 20 条至第 23 条的规定。

        ☐ 权利要求_____不符合专利法第 9 条的规定。

        ☐ 权利要求_____不符合实施细则第 13 条第 1 款的规定。

    上述结论性意见的具体分析见本通知书的正文部分。

7. 鉴于上述结论性意见，审查员认为：

    ☐ 申请人应按照通知书正文部分提出的要求，对申请文件进行修改。

    ☒ 申请人应在意见陈述书中论述其专利申请可以被授予专利权的理由，并对通知书正文部分中指出的不符合
        规定之处进行修改，否则将不能授予专利权。

    ☐ 专利申请中没有可以被授予专利权的实质性内容，如果申请人没有陈述理由或者陈述理由不充分，其申
        请将被驳回。

    ☐

8. 申请人应注意下述事项：

    （1）根据专利法第 37 条的规定，申请人应在收到本通知书之日起的___四___个月内陈述意见，如果申请人
        无正当理由逾期不答复，其申请将被视为撤回。

    （2）申请人对其申请的修改应符合专利法第 33 条的规定，修改文本应一式两份，其格式应符合审查指南
        的有关规定。

    （3）申请人的意见陈述书和/或修改文本应邮寄或递交给国家知识产权局专利局受理处，凡未邮寄或递交
        给受理处的文件不具备法律效力。

    （4）未经预约，申请人和/或代理人不得前来国家知识产权局专利局与审查员举行会晤。

9. 本通知书正文部分共有 3 页，并附有下述附件：

    ☒ 引用的对比文件的复印件共 2 份 9 页。

    ☐

开了创建过程、删除过程等过程，并且根据本领域普通技术人员所掌握的普通技术知识可知，文件创建过程、区分配过程、记录过程、重放过程和关闭过程等过程都是很普通的对文件进行操作的过程。由此可知，本领域普通技术人员在对比文件 1 的基础上，会从对比文件 2 获得将上述区别技术特征应用到对比文件 1 中而得到当前权利要求 5 所要求保护技术方案的启示，也就是说这样的结合对本领域技术人员来说是显而易见的，没有产生意想不到的技术效果，不具备突出的实质性特点和显著的进步，因此权利要求 5 所保护的技术方案不具备专利法第22条第3款有关创造性的规定。

3：权利要求 7 所要求保护的技术方案不具备创造性，不符合专利法第 22 条第 3 款的规定。

从属权利要求 7 是对权利要求 5 的进一步限定，而此限定部分技术特征已在对比文件 1 中公开："在 AV 数据的情况下，进一步确定数据是否是需要实时记录的 AV 数据，当同步模式被设置为从主机到记录设备的数据传输模式时，确定时实时记录"（参见对比文件 1 的说明书第 15 行第 4 行至第 12 行），此公开的"同步模式被设置为从主机到记录设备的数据传输模式"即为指示文件要求实时记录/重放的文件指示信息。因此，当其引用的独立权利要求 5 相对于对比文件 1 和对比文件 2 不具有创造性时，从属权利要求 7 所要求保护的技术方案也不具备专利法第 22 条第 3 款有关创造性的规定。

4：权利要求书修改后，申请人还应当对说明书的技术方案部分作相应的修改，在该部分中记载能够反映每一项独立权利要求所要求保护的技术方案的内容。

5：在说明书每一部分前面没有写明标题，不符合专利法实施细则第 18 条第 2 款的规定。申请人应对其进行修改。

6：权利要求书修改后，申请人还应对本申请的发明名称进行修改，使之反映本申请中所包含的各种发明类型。

基于上述理由，本申请按照目前的文本是不能被授予专利权，申请人应该根据上述审查意见在指定的期限内提交新的权利要求书和说明书，并提交原申请文件的替换页，修改时应满足专利法第 33 条的规定，不得超出原说明书和权利要求书记载的范围。（在意见陈述书中充分论述新修改的权利要求书相对于审

查员引用的对比文件1具有创造性的理由）

申请人在提交修改文本时应当提交：第一，修改涉及部分原文的复印件，采用红色钢笔或红色圆珠笔在该复印件上标出所做的增加删除或替换；第二，重新打印的替换页一式两份，用于替换相应的原文。申请人应当确保上述两部分在内容上的一致。

中华人民共和国国家知识产权局

第一次审查意见通知书正文

申请号：02140736.3

1：权利要求1－4保护范围不清楚，不符合专利法实施细则20条第1款的规定。

权利要求1－4所要求保护的是一种记录介质，属于产品权利要求，但这些权利要求是以其上所记载的信息的记录方式为所限定的技术特征，即是以信息为记载的形式，而一种记录介质的技术特征在于该记录介质的材料、形状、结构尺寸，所以这些权利要求所限定的技术特征与构成记录介质本身所应具有的技术特征无关，因此权利要求1－4不符合专利法实施细则20条第1款的规定。审查员提醒申请人注意，由于在原说明书中并没有记载关于记录媒体的材料、形状、结构尺寸等技术特征，因此如果申请人把原权利要求1－4修改成符合规定的新的权利要求，则会超出原说明书和权利要求书记载的范围。因此审查员建议申请人把权利要求1－4删除。

2：独立权利要求5所要求保护的技术方案不具备创造性，不符合专利法第22条第3款的规定。

独立权利要求5请求保护一种操作文件的方法，对比文件1（WO9814938A1）公开了一种适用于在/从盘上记录/再生AV数据的记录/再生方法，并具体公开了以下特征："确定输入数据是否是AV数据，当为记录AV数据发出Write-AV命令时，确定是AV数据"（参见对比文件1的说明书第14页第21行至第26行）；"在AV数据的情况下，进一步确定数据是否是需要实时记录的AV数据，当同步模式被设置为从主机到记录设备的数据传输模式时，确定时实时记录"（参见对比文件1的说明书第15行第4行至第12行），由上述公开的技术特征可知，所公开的"Write-AV命令"和"同步模式的数据传输模式"都是实时记录和/或重放属性信息的一种，因此也都是根据这些属性信息对实时文件进行操作。权利要求1与对比文件1的区别在于技术特征："按照实时文件创建过程、区分配过程、记录过程、重放过程和关闭过程中任何一个过程"。对比文件2（CN1117168A）公开了一种用于数据存储设备物理格式的用户定义的方法，并具体公开了"它用于为用户进程提供任务创建、删除、状态与同步功能"（参见对比文件2的说明书第5页第24行至第6页第1行），由此可知此对比文件公

The Patent office of the People's Republic Of China

Applicant: SAMSUNG ELECTRONICS CO., LTD.	ISSUING DATE:
Agent: Ting Ma	
Application No.: 03140736.3	2004. 3. 19.
Title: RECORDING MEDIUM FOR STORING REAL TIME	

THE FIRST OFFICE ACTION

1. ☒ The applicant filed a request for substantive examination on Year 02 Month 7 Day 15 according to Article 35 Paragraph 1 of the Patent Law. The examiner has conducted a substantive examination to the above-mentioned patent application.

   ☐ According to Article 35 paragraph 2 of the Patent Law, Chinese Patent office decided on its own initiative to conduct a substantive examination to the above-mentioned patent application.

2. ☒ The applicant requested to take

   Year 98 Month 5 Day 1 on which an application is filed with the KR patent office as the priority date.

   Year_____ Month_____ Day_____ on which an application is filed with the_____ patent office as the priority date.

   Year_____ Month_____ Day_____ on which an application is filed with the_____ patent office as the priority date.

   ☒ The applicant has submitted the copy of the earliest application document certified by the competent authority of that country.

   ☐ According to Article 30 of the Patent Law, if the applicant has not yet submitted the copy of the earliest application document certified by the competent authority of that country, the declaration for Priority shall be deemed not to have been made.

   ☐ This application is a PCT application.

3. ☐ The applicant submitted the amended document(s) on Year____ Month____ Day____ and Year___ Month_____ Day after examination, _____ submitted on Year_____ Month____ Day_____ is/are not accepted.

   _____ submitted on Year_____ Month_____ Day_____ is/are not accepted

   because the said amendment(s) ☐ is/are not in conformity with Article 33 of the Patent Law.

   ☐ is/are not in conformity with Rule 51 of the Implementing Regulations.

   ☐ The concrete reason(s) for not accepting the amendment(s) is/are presented on the text of Office Action.

4. ☒ The examination has been conducted based on the application text as originally filed.

   ☐ The examination has been conducted based on the following text(s):

   page(s)_____ of the specification, Claim(s)_____, and figure(s)_____ in the original text of the application submitted on the filing day.

   page(s)_____ of the specification, claim(s)_____, and figure(s)_____ submitted on Year____ Month____ Day____

   page(s)_____ of the specification, claim(s)_____, and figure(s)_____ submitted on Year____ Month____ Day____

5. ☐ This notification was made without undergoing search.

   ☒ This notification was made with undergoing search.

   ☒ The following reference document(s) is/are cited:(the reference numeral(s) thereof will be used in the examination procedure hereafter)

NO.	Reference No. or Title	Publishing Date
1	WO 9814938 A1	1998. 4. 9
2	CN 1117168 A.	1996. 2. 21
3		
4		
5		

6. Concluding comments

☒ on the specification:

    ☐ The contents of the application are in contrary to Article 5 of the Patent Law and therefore are not patentable.

    ☐ The contents of the application do not possess the practical applicability as prescribed in Paragraph 4 of Article 5 of the Patent Law.

    ☐ The specification is not in conformity with the provision of Paragraph 3 of Article 26 of the Patent Law.

    ☒ The presentation of the specification is not in conformity with the provision of Rule 18 of the Implementing Regulations.

☒ on the claims:

    ☐ Claim(s) _____ belong(s) to non-patentable subject matter as prescribed in Article 25 of the Patent law.

    ☐ Claim(s)_____ do(es) not comply with the definition of a patent as provided in Rule 2 paragraph 1 of the Implementing Regulations.

    ☐ Claim(s)_____ do(es) not possess novelty as requested by Article 22 paragraph 2 of the Patent Law.

    ☒ Claim(s) 5, 7 _____ do(es) not possess inventiveness as requested by Article 22 paragraph 3 of the Patent Law.

    ☐ Claim(s)_____ do(es) not possess practical applicability as requested by Article 22 paragraph 4 of the Patent Law.

    ☐ Claim(s)_____ do(es) not comply with the provision of Article 26 paragraph 4 of the Patent Law.

    ☐ Claim(s)_____ do(es) not comply with the provision of Article 31 paragraph 1 of the Patent Law.

    ☒ Claim(s) 1-4 _____ do(es) not comply with provision of Rules 20 to 23 of the Implementing Regulations.

    ☐ Claim(s)_____ do(es) not comply with the provision of Article 9 of the Patent Law.

    ☐ Claim(s)_____ do(es) not comply with the provision of Rule 12 paragraph 1 of the Implementing Regulations.

    The detailed analysis for the above concluding comments is presented on the text of this Office Action.

7. Based on the above concluding comments, the examiner is of the opinion that

☐ The applicant should amend the application document(s) in accordance with the requirement as specified in the Office Action.

☒ The applicant should, in his observation, expound the patentability of the application of the application, amend the defects pointed out in the Office Action; or the application can hardly be approved.

☐ The examined deems that the application lacks substantive features to make it patentable. Therefore, the application will be rejected if no convincing reasons are provided to prove its patentability.

8. The applicant should pay attention to the following matters:

    (1) According to Article 37 of the Patent Law, the applicant is required to submit his observations within Four months upon receipt of this Office Action. If the time limit for making response is not met without any justified reason, the application to have been withdraw.

    (2) The amendment(s) made by the applicant must meet the requirements of Article 33 of the Patent Law. The amended text should be in duplicate, its format should conform to the related confinement in the Guidance for Examination.

    (3) The applicant and/or the agent should not go to the Chinese Patent Office to interview the examiner without being invited.

    (4) The observation and/of the amended document(s) must be mailed of delivered to the Receiving Section of the Chinese Patent Office. No legal effect shall apply for any document(s) that not mailed to or reached the Receiving Section.

9. The text of this Office Action contains ___3___ page(s), and has the following attachment(s):

☒ ___2___ copies of the cited references, all together ___9___ pages.

☐

Examination Dept. No._____ Examiner_____ Seal of Examination Dept. for business only _____

(if the Office Action wasn' t stamped by the specified seal, it has no legal effect)

TEXT OF THE FIRST OFFICE ACTION

Application number: 02140736.3

1. Claims 1-4 do not comply with the provision of Rule 20, paragraph 1 of the Implementing Regulations of the Chinese Patent Law in that the protection scope thereof is not clear.

Claims 1-4 are for a recording medium and thus belong to product claims. However, said claims take the recording modes of the information recorded thereon as the technical features defined therein, that is, take the information as the recording manner. But the technical features of a recording medium lie in the material, shape, structural size of the recording medium, thereby the technical features defined in said claims have no relation with the technical feature for constituting the recording medium per se. Thus, claims 1-4 do not comply with the provision of Rule 20, paragraph 1 of the Implementing Regulations of the Chinese Patent Law. The applicant should note that: since the original specification does not disclose the technical features concerning the material, shape, structural size of the recording medium, the amendments will go beyond the scope of the original specification and claims if the applicant amends the original claims 1-4 into the new claims complying with the provision. Therefore, the examiner suggests the applicant delete claims 1-4.

2. The technical solution sought for protection in the independent claim 5 does not possess inventiveness, which does not comply with the provision of Article 22, paragraph 3 of the Chinese Patent Law.

The independent claim 5 is for a method of operating a file. Reference 1 (WO9814938A1) has disclosed a recording/reproducing method suitable for recording/reproducing AV data on/from disc with the following technical features in detail: "it is determined whether the input data is AV data or not, when Write_AV command is sent for recording AV data, it is determined to be AV data" (refer to page 14, lines 21-26 of the specification of Reference 1); "in the case of AV data, it is further determined whether the data is the AV data which requires real time recording,

when the synchronous mode is set as the data transfer mode from the host computer to the recording apparatus, it is determined to be real time recording" (refer to page 15, lines 4-12 of the specification of Reference 1). Thus it can be seen from the above technical features that: the disclosed "Write_AV command" and "the data transfer mode of the synchronous mode" both belong to a kind of real time recording/reproduction attribute information, and thus both of them operate the real time file according to the attribute information. Claim 5 is distinguished from Reference 1 in the technical feature of "in correspondence with any one process among a real time file creation process, an area allocation process, a recording process, a reproduction process, a deletion process, and a closing process". Reference 2 (CN1117168A) has disclosed a method for user definition of data storage device physical format with the following in detail: "which is utilized to provide task creation, deletion, status and synchronization functions for user processes" (refer to page 5, line 24 to page 6 line 1 of the specification of Reference 2. Thus it can be seen that Reference 2 has disclosed the processes such as creation and deletion. And according to the common technical knowledge grasped by those skilled in the art, all the processes such as file creation process, area allocation process, recording process, reproduction process and closing process belong to the common processes for operating the file. Thus it can be seen that based on Reference 1, those skilled in the art can obtain the inspiration from Reference 2 as applying the above distinctive features into Reference 1 to obtain the technical solution sought for protection in the present claim 5. That is, such a combination is obvious for those skilled in the art, fails to create any unexpected technical effect, and does not possess prominent substantive feature or notable progress. Thus, the technical solution sought for protection in claim 5 does not possess inventiveness as prescribed in Article 22, paragraph 3 of the Chinese Patent Law.

3. The technical solution sought for protection in claim 7 does not possess inventiveness, which does not comply with the provision of Article 22, paragraph 3 of the Chinese Patent Law.

The dependent claim 7 further defines claim 5, but the technical feature in the characterizing portion thereof has been disclosed in Reference 1 as "in the case of AV data, it is further determined whether the data is the AV data which requires real time

recording, when the synchronous mode is set as the data transfer mode from the host computer to the recording apparatus, it is determined to be real time recording" (refer to page 15, lines 4-12 of the specification of Reference 1). The feature of "the synchronous mode is set as the data transfer mode from the host computer to the recording apparatus" disclosed here indicates the file indication information indicating that a file requires real time recording/reproduction. Thus, as the cited independent claim 5 does not possess inventiveness in comparison with References 1 and 2, the technical solution sought for protection in the dependent claim 7 does not possess inventiveness as prescribed in Article 22, paragraph 3 of the Chinese Patent Law either.

4. After amending the claims, the applicant should also make corresponding amendments to the technical solution portion of the specification by recording into said portion the contents of the technical solutions sought for protection in the respective independent claims.

5. Each part of the specification lacks a heading, which does not comply with the provision of Rule 18, paragraph 2 of the Implementing Regulations of the Chinese Patent Law. The applicant should make amendments to that.

6. After amending the claims, the applicant should further amend the title of the invention of the present application, so as to enable the title to reflect various types of invention included in the application.

Due to the above reasons, the application can not be granted a patent right under the present text. The applicant should, within the specified time limit, submit the new claims and specification in accordance with the above examination opinions, and submit the substitute sheets of the original application text. Furthermore, any amendment should not go beyond the scope of the original specification and claims, so as to comply with the provision of Article 33 of the Chinese Patent Law. (And the applicant should expound reasons in his Observation to prove the anew amended claims do possess inventiveness in comparison with Reference 1 cited by the Examiner).

The amended documents to be submitted by the applicant shall include: No.1, a copy of the original document concerning the part due to be amended, in which any insertion, deletion or replacement should be made in red with red pen or red ball-pen; No.2, a set of replacement sheets, which will be used to replace the corresponding original part. The applicant should ensure the above two parts are corresponding in contents.

JXH